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AACGGCCAGCAGGAAAAAATGAAGCATATTATCAATTCTGATGAACACACCAATGACACCGCAAG
AAATAACTCCGATTGTCCTGATGTAGTTTGGCCAGAAGAGATATTTTTCACAATCTCTGTCATTG
GCATATTGGAGAACTTGATTGTCCTCCTGGCTGTGATCAAAAATAAAAATCTCCAGTCCCCCATG
TATTTTTTTCATCTGCAGTTTGGCCATTTCTGACATGTTGGGCAGTCTGTATAAGATCTTGAAAA
CATCCTGATCATGTTTCAGAAACATGGGTATCTTAAGCCTCGTGGCAGTTTGTAAAGCACAGCAG
ATGACATCATTGACTGCATGTTTCATCCTCTCTTTGCTGGGCTCTATCTTCAGCCTGTCTGTCATT
GCAGCTGACCGTTACATCACCATCTTCCATGCCCTGCAATACCATAGCATTGTGACCATGCGCCG
CACCATCATCACCCTAACAATTATCTGGATGTTCTGCACAGGGAGCGGCATCACCATGGTGATCT
TCTCCCACCACATCCCCACAGTGCTCACCTTCACATCGCTGTTCCCTTTGATGCTGGTTTTTATC
CTGTGTCTCTACATCCACATGTTCTTACTTGCCCGTCCCATGCTAGGAAGATCTCTACCCTTCC
TAGAACCAACATGAAGGGTGCCATGACACTAACCATCCTTCTTGAGTCTTCATCTTCTGTTGGG
CCCCCTTTGTGCTCCATGTTCTCTTAATGACCTTCTGCCCAAATAACCCTTACTGTGTTTGCTAC
ATGTCTCTCTTCCAGGTCAATGGCATGTTGATCATGTGCAATGCAGTTATTGACCCCTTTATATA
TGCCTTTTCGGAGCCCAGAGCTCAGAGATGCATTCAAAGGATGCTCTTCTGCAACCGGTATTAGT
AGAATTTTTGATCCCTGCTTTGAGTGTTGTAAAGGGACCAAATAACACATCAGTCTGACA (SEQ
ID NO:1)

MKHIINSYEHTNDTARNNSDCPDVLPPEIFFTISVIGILENLIVLLAVIKNKNLQSPMYFFICS
LAISDMLGSLYKILENILIMFRNMGYLKPRGSFESTADDIIDCMFILSLLGSIFSLSVIAADRYI
TIFHALQYHSIVTMRRTIITLTIIWMFCTGSGITMVIFSHIPTVLTFTSLFPLMLVFILCLYIH
MFLARSHARKISTLPRTNMKGAMTLTILLGVFIFCWAPFVLHVLLMTFCPNNPYCVCYMSLFQV
NGMLIMCNAVIDPFIYAFRSPELRDAFKRMLFCNRY (SEQ ID NO:2)

FIGURE 1

underlined = deleted in targeting construct

Bold = sequence flanking Neo insert in targeting construct

ATTTATTTATTTAATCATCTCATATGTGTCTATGTGTTCTGTTTAAACCTCAGATCCTTCC
 ACACAAAGAAAACATACTGCAGAAACAATCGTGATTTCTGTAAGTCAACGGCAAACACCA
 CCCCCGTCTTAACGGCCAGCAGGAAAAAATGAAGCATATTATCAATTCGTATGAACACAC
 CAATGACACCGCAAGAAATAACTCCGATTGTCCTGATGTAGTTTTGCCAGAAGAGATATT
 TTTTACAATCTCTGTCAATTGGCATATTGGAGAACTTGATTGTCCTCCTGGCTGTGATCAA
 AAATAAAAATCTCCAGTCCCCCATGTATTTTTTTCATCTGCAGTTTGGCCATTTCTGACAT
 GTTGGGCAGTCTGTATAAGATCTTGGAAAACATCCTGATCATGTTTCAGAAACATGGGTTA
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 CCTCTCTTTGCTGGGCTCTATCTTCAGCCTGTCTGTCATTGCAGCTGACCGTTACATCAC
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 CATCCCCACAGTGCTCACCTTCACATCGCTGTTCCCTTTGATGCTGGTTTTTATCCTGTG
 TCTCTACATCCACATGTTCTTACTTGCCCGCTCCCATGCTAGGAAGATCTCTACCCTTCC
 TAGAACCAACATGAAGGGTGCCATGACACTAACCATCCTTCTTGGAGTCTTCATCTTCTG
 TTGGGCCCCCTTTGTGCTCCATGTTCTCTTAATGACCTTCTGCCCCAAATAACCCTTACTG
 TGTTTGCTACATGTCTCTCTTCCAGGTCAATGGCATGTTGATCATGTGCAATGCAGTTAT
 TGACCCCTTTTATATATGCCTTTTCGGAGCCCAGAGCTCAGAGATGCATTCAAAGGATGCT
 CTTCTGCAACCGGTATTAGTAGAATTTTTGATCCCTGCTTTGAGTGTTGTAAAGGGACCA
 AATAACACATCAGTCTGACA (SEQ ID NO:1)

FIGURE 2A

Gene Sequence Structure *

371 bp

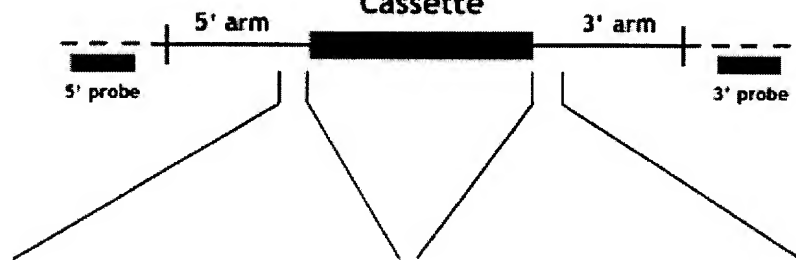
Sequence Deleted

796 bp

Size of full-length
cDNA: 1100 bp

Targeting Vector* (genomic sequence)

LacZ-Neo Cassette



Arm Length:
5': 1.5 kb
3': 3 kb

———— Targeting Vector
----- Endogenous Locus

* Not drawn to scale

5' >ATGAACACACCAATGACACCG
CAAGAAATAACTCCGATTGTCCTG
ATGTAGTTTTGCCAGAAGAGATAT
TTTTCACAATCTCTGTCATTGGCA
TATTGGAGAACTTGATTGTCCTCC
TGGCTGTGATCAAAAATAAAAATC
TCCAGTCCCCCATGTATTTTTTCA
TCTGCAGTTTGGCCATTTCTGACA
TGTTGGGCAGT<3' (SEQ ID
NO:3)

5' >GGTGCCATGACACTAACCATC
CTTCTTGGAGTCTTCATCTTCTGT
TGGGCCCCCTTTGTGCTCCATGTT
CTCTTAATGACTTTCTGCCCCAAAT
AACCCTTACTGTGTTTGCTACATG
TCTCTCTCCAGGTCAATGGCATG
TTGATCATGTGCAATGCAGTTATT
GACCCCTTTATATATGCCTTTCGG
AGCCCAGAGCT<3' (SEQ ID
NO:4)

FIGURE 2B

Metrazol Dose to Reach Seizure Stages

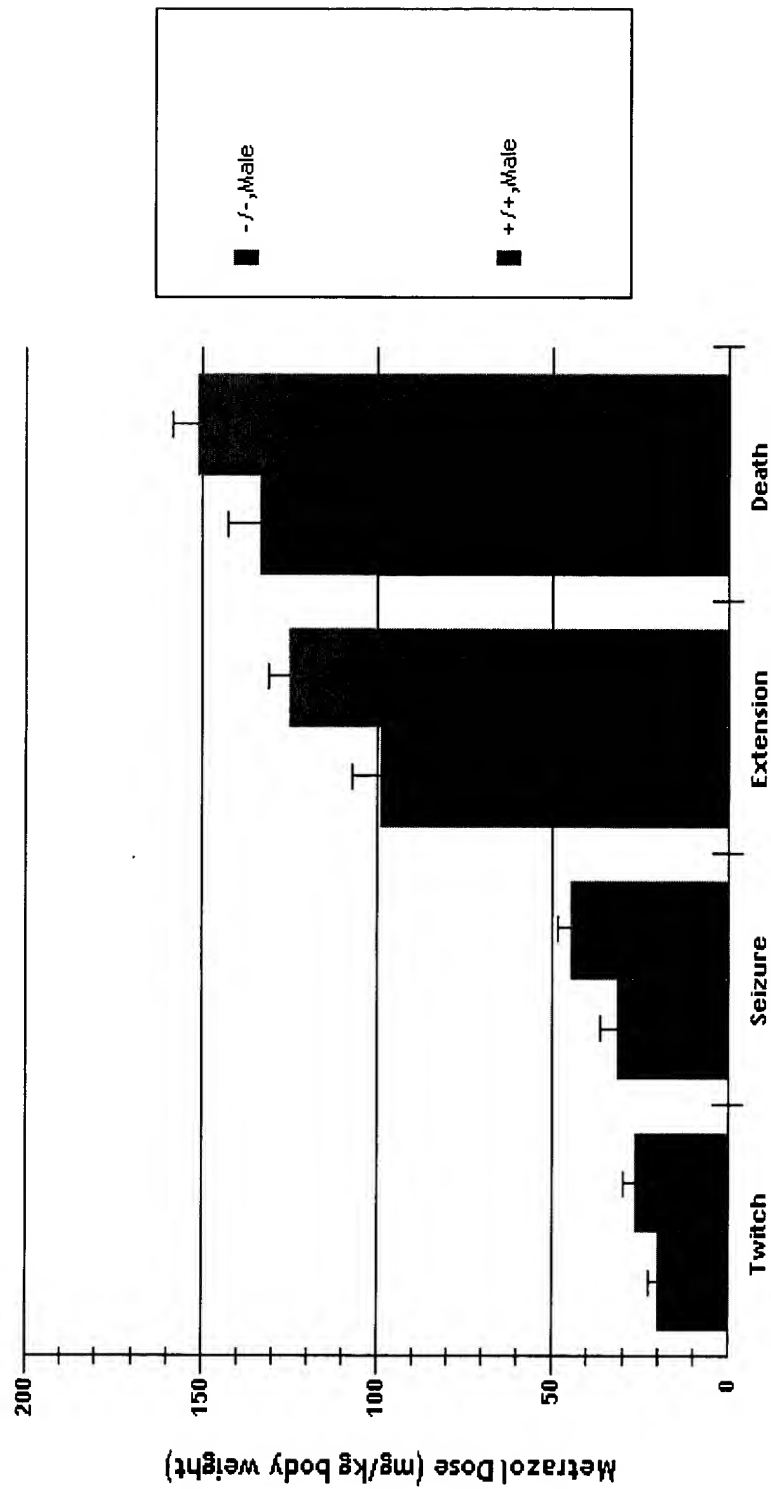


FIGURE 3

Open Field Summary Data - Distance Travelled

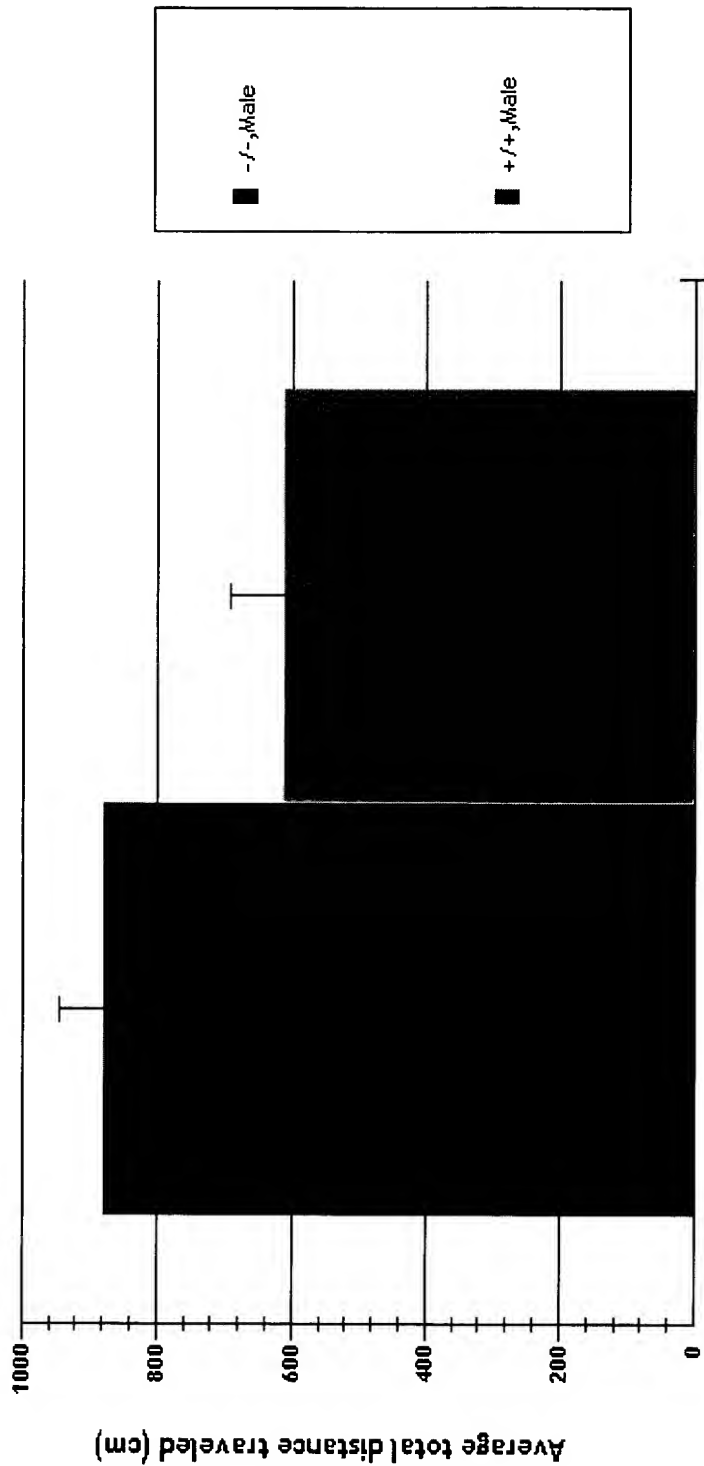


FIGURE 4

Tail Suspension - Total Time Immobile

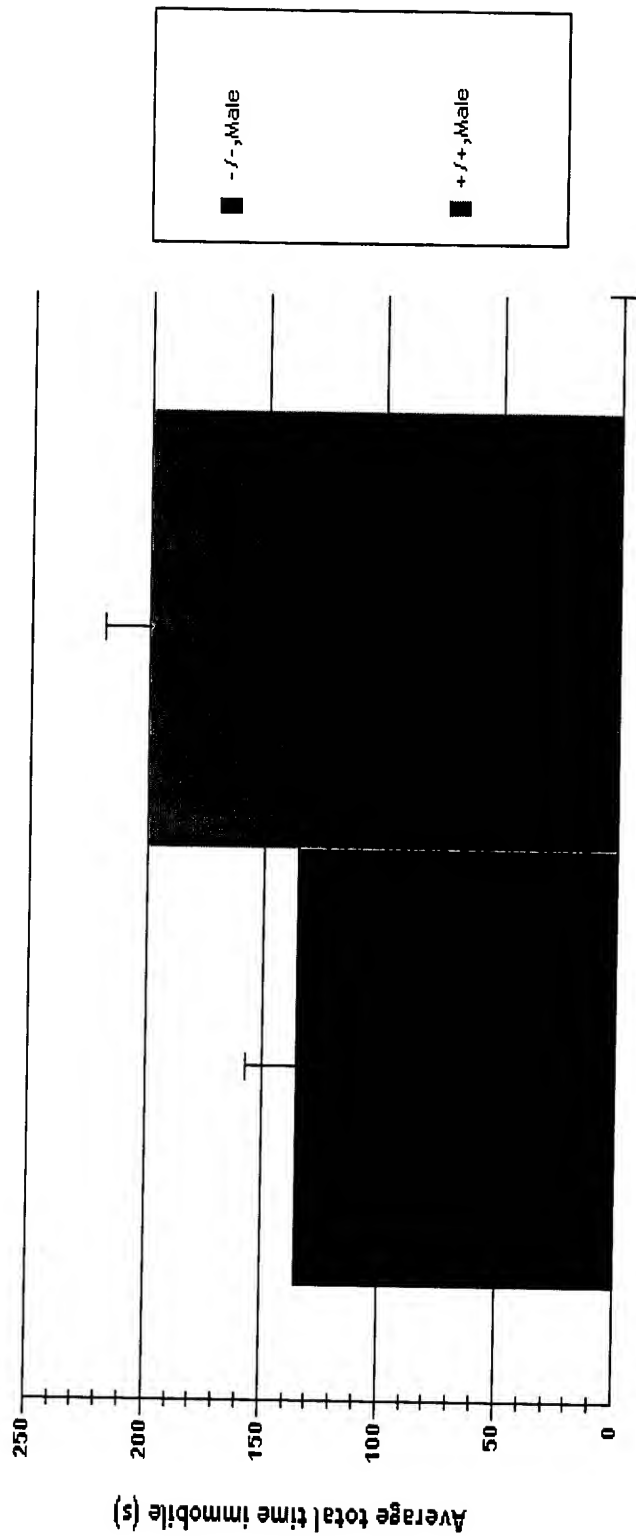


FIGURE 5